



2006962

**VASQUEZ BOULEVARD/INTERSTATE 70 SITE  
WORKING GROUP MEETING  
FINAL MEETING SUMMARY  
February 24, 2000  
Swansea Recreation Center**

00 APR 13 PM 2:07  
EPA REGION VIII  
SUPERFUND BRANCH

**IN ATTENDANCE**

**Working Group**

Anthony Thomas, Clayton Neighborhood  
Barbara O'Grady, State of Colorado, Department of Public Health and Environment  
Bonnie Lavelle, EPA Region 8  
Celia Vanderloop, City and County of Denver, Dept. of Environmental Health  
David Mellard, ATSDR  
Jane Mitchell, CDPHE  
Joan Hooker, Clayton Neighborhood  
Linda Larson, Heller Ehrman White & McAuliffe (Asarco)  
Lorraine Granado, Cross Community Coalition  
Michael Maes, Elyria Neighborhood  
Robert Litle, Asarco  
Sandy Douglas, Cole Neighborhood  
Melissa Muñoz, COPEEN  
Chuck Patterson, Globeville Neighborhood

**Others**

Steve Hamel, Colorado Attorney General's Office  
Ted Fellman, EPA Region 8  
Theresa NeSmith, ATSDR  
Gene Hook, City and County of Denver Department of Environmental Health  
David Folkes, EnviroGroup (Asarco)  
Joyce Tsuji, Exponent  
Madeline Williams, National Association of Black Environmentalists  
Pat Courtney, EPA Region 8  
Michael Wenstrom, EPA Region 8  
Elisabeth Evans, EPA Region 8  
Brenda South, EPA Region 8  
Julia Korndorfer, CDPHE  
Laurel Mattrey, COPEEN

**CDR Associates**

Louise Smart  
Sylvia Kroeger

The facilitator reviewed the agenda for the meeting. The following items were added: National Association of Black Environmentalists Report, Dr. Drexler's work, update on pig study, update on EPA's risk assessment, update on dirt piles.

## **AGENDA ITEMS**

### **Phase III Data**

At the request of the community, Bonnie Lavelle will provide the CD-ROM of Phase III data to Copeen, Cross-Community Coalition, and Joan Hooker. Summaries of the data will be placed in the information repositories.

Bonnie referred the Working Group to the handout, *Initial Phase III Sampling Program Summary*. She reported that EPA sampled 1,573 properties during Phase III. The information from these properties will be used in the Risk Assessment. EPA has an equal distribution of dust taken from homes with high, medium, and low arsenic concentrations in their yards.

EPA established three categories of homes:

1. Homes where no further action will be taken (431 homes). At these homes, EPA did not detect a significant level of arsenic (the detection limit was 11 ppm) and lead concentrations were less than 400 ppm. These homes are no longer part of the Superfund site.
2. Homes where arsenic concentration levels were over 400 ppm (23 homes). These homes are slated for time-critical remediation of their yards.
3. Homes where no immediate action is warranted, and there has not yet been a decision about future action (1,094 homes). The Risk Assessment will address these homes. At these homes, the lead and arsenic concentrations were not high enough to require time-critical remediation, but the lead concentrations were over 400 ppm and arsenic was detected.

EPA will use Phase III protocols to continue to sample properties in this area: (a) re-sample all of the properties sampled in 1998 under Phase I and Phase II, and (b) properties that have not yet been sampled. This work will be conducted in April and May.

Bonnie presented bar charts summarizing Phase III results, showing the numbers of homes with different ranges of concentrations of arsenic and lead.

### **Biomonitoring/Blood Lead Testing**

Bonnie Lavelle told the Working Group that EPA has offered blood lead testing to residents of two homes with high lead concentrations in the homes' dust but not in the

soils. She also distributed EPA's biomonitoring plan. EPA has given vouchers for biomonitoring tests to residents who live in time-critical removal homes, plus two others. This prompted discussion related to testing and biomonitoring. ATSDR will be conducting its own biomonitoring program. Since EPA and ATSDR are both going to be conducting biomonitoring testing, it is essential they think about the timing and coordination of the testing, including protocols. As was demonstrated in a prior State-conducted program in Globeville, residents may be reluctant to be tested more than once. Discussion of EPA's and ATSDR's testing included:

- EPA will be testing residents from the 23 time-critical removal homes. ATSDR will want to test residents from some of these homes. Such testing should be conducted prior to the remediation of the yard.
- The goal is to get residents tested under both programs, as each program serves a different purpose. ATSDR's purpose is two-fold: (a) to determine whether there is a problem right now and should the person be seeing a doctor because s/he has been exposed, and (b) to determine what other health-related activities should occur. EPA's purpose is service-oriented, to help people address their fear about contamination; if they are scared, they can go to the clinic and be tested.
- The Working Group asked whether the data from one testing program could be used for both programs. The protocols may be different. There is a need to compare and discuss protocols.
- If data cannot be shared between the programs, one option is to tell people at the beginning that the testing program is a series and that they may be asked for a follow-up sample. Under this scenario, an explanatory card could be given to them at the clinic when they are tested. The Working Group noted that an in-person explanation by ATSDR and EPA of the need for testing by both agencies would be much more effective than a written explanation, especially from a government agency.
- **A conference call will be held Monday, March 6 at 1:00 PM to discuss both agencies' testing plans and how to coordinate them. Participating will be: Bonnie Lavelle, David Mellard, Mel Muñoz, Lorraine Granada, Celia VanDerLoop, Jane Mitchell, Bob Litle, Joyce Tsuji.**

In addition, Anthony Thomas requested that residents be tested in their own community, rather than be required to go to a testing facility in another county (such as for the blood lead testing). He also raised the question of the validity of typical urine analysis on black people. He said that many black people have high blood pressure and take diuretics, and that this may affect the results of urine testing.

### **Confidentiality**

The Draft Risk Assessment will include summary data and a discussion of the quality of the data. It will not provide a correlation between the data and the location of the

sampled properties. ATSDR needs addresses of the sampled properties in order to conduct its Public Health Assessment. EPA can not provide the sampling results by address and age of residents. EPA wants to protect the confidentiality of the data and therefore needs some form of assurance from ATSDR that ATSDR will not release the data. The Working Group discussed this confidentiality issue:

- Realtors have called Bonnie and others asking about contamination levels at specific properties. Bonnie has not released that information to them. She is concerned about impact on property value.
- Specific addresses were made available in Phase I and Phase II. Bonnie Lavelle was not the project manager during those Phases. Some community members felt that a precedent had been set in Phase I and Phase II.
- The interests of the property buyer should be considered.
- Neighbors may want to know the contamination level of properties where their children play.
- Bonnie Lavelle said that she is unwilling to make the addresses public and that any ramifications from releasing this information is her responsibility.
- The Working Group requested that information regarding public property (schools, parks) be released. Bonnie said she would look into this. Celia VanDerLoop said that Denver might have to release city property and school property information.

EPA and ATSDR will work together to come up with a confidentiality-protection means that is both timely and effective, so that EPA can release the data to ATSDR as soon as possible. [As of 2/28/00, ATSDR has received the addresses from EPA and will send EPA an e-mail saying that the data will be kept confidential.]

### **Quality Assurance Information on Phase III Testing of Samples**

Bonnie Lavelle distributed handouts (*Vasquez Boulevard & I-70: Phase III Final Results Summary*) showing the results of EPA's quality assurance program. After conducting a number of quality assurance activities, EPA believes the Phase III data are a very good quality data set and can be relied upon for the Risk Assessment. When EPA uses the Phase III data in the Risk Assessment, there can be a good level of certainty about the quality of the decisions that are made. The quality assurance activities included:

1. A check on the detection limits. EPA checked on the ability of its XRF machine to detect arsenic and lead by testing a known low-level sample on the machine and comparing the results with the known level. Phase I and II had detection limits for arsenic of 50-100 ppm. The Phase III detection limit is 11. More information on detection limits is available in the Appendix in the Phase III Project Plan available at all information repositories.

2. Confirmation samples. Samples were tested by the XRF method in the field. EPA took 10% of these samples and had them tested by the ICP method (Inductively Coupled Plasma Method). There was a high correlation between the results of these two methods.
3. Use of certified samples to test the accuracy of the test. EPA bought samples that were certified to be at certain concentrations and had them tested, without the tester knowing they were not samples from the area. The XRF test read these samples accurately.
4. Use of spiked samples. EPA sent samples to both the XRF and ICP laboratories that were spiked at different concentrations, and found that both labs identified the same concentrations.
5. XRF laboratory duplicates. EPA ran duplicate samples within their own laboratory to check the precision of the testing. The results were the same.
6. Comparison of bulk versus fine fraction. Some samples were sieved to a fine fraction, which represents the kind of dust that people get exposed to, and some samples were left coarser. This will be discussed further in the Risk Assessment.
7. Comparison between sieving and then drying with drying and then sieving. EPA made a change in the sample preparation procedure. EPA changed the procedure to allow the sample to be mixed, then a portion taken for testing was dried and sieved. The results were compared between the first and second procedures. Sieving and then drying showed lower concentrations. The results did not show enough difference to create a concern. (Chuck Patterson suggested that the second procedure was probably more accurate because dry soil did not stick to the sieve as wet soil may have.)
8. Homogenization tests. EPA concluded that the mixing was good throughout the study and that composite sampling will be effective.

### **Phase III Questions**

The Working Group listed the following questions for EPA, regarding Phase III:

- What is the variability across the composites?
- What if something failed one of the quality assurance tests? Would EPA then conduct re-sampling (to look for hot spots)?
- Has EPA obtained access agreements for City-owned and leased structures (yes) and Denver Housing Authority properties (EPA is working on access)?
- Is there a map of the boundaries? How should Brighton/Wazee/South Platte be labeled (should be called "Globeville" – not "Five Points").

## **Yard Replacement at "Phase III Removal Homes"**

Ted Fellman reported that there are 23 Phase III properties with greater than 400ppm arsenic that will be cleaned up under a time-critical removal action. Pete Stevenson of EPA will be conducting the cleanup of these properties. EPA has met with some of the property owners and will be talking individually with all of the property owners. In these meetings, EPA walks the yard with the property owner and discusses the owner's landscaping needs. Dust monitors will be set up at the properties to ensure that dust does not spread during the removals. Cleanup will start in April. If any of these property owners refuse cleanup, the community representatives will help talk with them to encourage them to have their properties cleaned up.

Ted explained that there are two options for cleanup listed in the September 1998 action memo:

- (a) Yard removal
- (b) If the home has little grass and the contamination is in the top 2 inches of the soil, then tilling and re-sodding

The Working Group discussed the tilling option, including the following:

- The community representatives strongly object to tilling as an action, especially in these high-level sites, and will meet to compose a message to EPA voicing this objection.
- If tilling is considered, then the State recommends that a pilot study be conducted to see if it is an effective cleanup method. The State does not want to exclude tilling as an option, but is uncomfortable with tilling for high-concentration (over 400 ppm) homes.
- The tilling method implies an action level has been set, but this has not yet occurred. To determine whether the tilling has resulted in a "safe" level of concentration, an action level must have been defined. Since no action level has been set yet, it would be impossible to set a target for the resulting soil concentrations.
- Pete Stevenson, who will be conducting these cleanups, has not said that he is considering tilling and, EPA believes he has not used tilling in the past. He will be asked to speak to the Working Group at their next meeting.
- Bonnie Lavelle will send out the section of the September 1998 action memo that deals with tilling to the Working Group.
- The community will meet to determine how they will communicate their objection regarding tilling to the EPA, such as drafting a letter.

- Each agency representative will determine whether and how they want to communicate their concerns to EPA.

### **ATSDR's Public Health Assessment Update**

David Mellard reported that the release of the Public Health Assessment has been delayed one to two months pending:

1. David's evaluation of Phase III data and incorporation of that information in the Public Health Assessment
2. The Soil Pica Workshop (March 29-30 in Atlanta)

At the Soil Pica Workshop, panelists who have done research in soil ingestion and soil pica behavior, plus one or two people from ATSDR and EPA, will discuss key soil pica questions, including:

- a. What is the prevalence of soil pica behavior?
- b. How much soil do soil pica children swallow?
- c. How can soil pica children be identified?

There may be funding for two community representatives to attend this workshop as observers. The workshop will be open to other observers. ATSDR will take the conclusions and recommendations from the panelists and determine what changes, if any, should be made in the Public Health Assessment.

David asked the Working Group for other suggested questions. These, and others already received by David, included:

- Should ATSDR consider soil pica behavior in pregnant women?
- What is the definition of soil pica?
- Is soil pica normal or abnormal behavior?
- How do you protect a pica child?
- Does bioavailability change with the amounts of soil ingested?

David asked the Working Group to send him any other questions they would like the panelists to address.

## Other ATSDR Activities

Exposure investigation: ATSDR will take hair samples (as requested by the State) and urine samples from children and some adults. David Hewitt will attend the Working Group meeting in March to answer testing questions. ATSDR will coordinate with EPA to conduct the testing before the time-critical removals begin.

Terry Taylor, from the State's Lead Poisoning Prevention Group will attend the next Working Group meeting. The State will conduct the blood lead testing, either on a voluntary basis or on the basis of referrals for testing of people where there are high levels of lead. Celia VanDerLoop said that Gene Hook will now be conducting the blood lead program for the City and will be coordinating with the State. Lorraine Granado said that since lead-based paint is an issue in this community, blood-lead testing should be offered to everyone.

Anthony Thomas noted that many black women use preparations on their hair that strips away arsenic and thus would affect the results of arsenic-in-hair testing. **The March 6 conference call will include discussion of ATSDR's protocol for urinary and hair testing.**

Soil Pica survey: ATSDR is looking into conducting a soil pica survey in the area. David Hewitt would head up this survey.

Health education: ATSDR is starting to plan health education activities that will include:

- A fact sheet on soil pica behavior
- Informational material on the exposure investigation (to be available before ATSDR collects samples from the community)
- Informational material that summarizes the Public Health Assessment

ATSDR will develop these materials, review them with the Health Team, and then bring them to the Working Group for comment prior to distribution.

In response to a question from Sandy Douglas, ATSDR said there is seed money available for community groups to conduct education and outreach programs about lead.

**The next Health Team meeting will be March 21 at 2:30 PM at the Cross-Community Coalition office.** At this meeting:

- Dr. Rosales will talk about health intervention and how it works.
- Dave Hewitt will talk about the exposure investigations.



- Madeline Williams from the National Association of Black Environmentalists will discuss her report on finding elevated levels of arsenic in northeast Denver (Park Hill) and discuss how ATSDR can interface with what she is doing in her community.

David Mellard said that in previous technical meetings, discussions had been held about how he reached the decisions he made and documented in the Public Health Assessment and how he calculated the doses. Bob Litle expressed concern about ATSDR making a quantitative as well as a qualitative assessment and that this might be duplicative of the quantitative assessment that EPA makes. David said that ATSDR makes a quantitative estimate of the dose. He suggested a technical meeting about how to evaluate Phase III data and how he will determine whether certain levels of arsenic will cause harmful effects. Bonnie Lavelle noted that throughout the Working Group process, EPA has laid out how EPA will evaluate the data through its Project Plan.

**A one-day Technical Meeting will be held on March 10 from 8:30 to 5:00 PM at the Cross-Community Coalition office.** The first portion of the meeting, from 8:30 to 1:00 will focus on the toxicity evaluation of Phase III data. The remaining portion of the meeting will address EPA's re-sampling (using Phase III protocol) of the Phase I and Phase II properties which ATSDR noted as properties of concern (see below). EPA will provide information on decision criteria.

### **Re-Sampling**

ATSDR identified 27 properties of concern from the Phase I and Phase II sampling. These were properties that indicated hot spots of arsenic. In response, EPA re-sampled these properties, using Phase III protocol. The results of the re-sampling show a lot of variability and merit discussion in a Technical Meeting (March 10). Bonnie requested that if the Working Group has questions on the re-sampling data, please send them to her so she can organize them for discussion at the March 10 Technical Meeting. Bonnie will distribute information on all three composite samples for each of the 27 properties.

### **Timeline for EPA and ATSDR Work**

Bonnie and David presented the following timelines for their upcoming work:

ATSDR	Draft Public Health Assessment	January
EPA	Electronic versions of Phase III data were distributed	February 18
ATSDR	Phase III Toxicity Evaluation	February and March
EPA	Draft Baseline Risk Assessment to be released (will include the Pig Study)	March 15
EPA	30-day review period for Draft Baseline Risk Assessment (comments back to EPA by April 17)	March 15 to April 17
ATSDR	Soil Pica Workshop	March 29-30

ATSDR	Revised Public Health Assessment	April
ATSDR	Exposure Investigation	April
EPA	Begin re-sampling of Phase I and II properties	by April
ATSDR	Initial release of the Public Health Assessment	May
ATSDR	Comment period and revision of Public Health Assessment	May-June
ATSDR	Public release of the Public Health Assessment	July
EPA	Record of Decision	September
ATSDR	Final release of the Public Health Assessment	September-October

## **Environmental Justice**

The community requested a response from EPA on how EPA will address the environmental justice issues at this site and how environmental justice will be integrated into the Superfund process. The community members will meet to prepare their ideas on what their expectations are of EPA regarding environmental justice at this site. The EPA environmental justice staff will also meet to discuss this. At the March Working Group meeting the EPA and the community will discuss this issue. The community members made it clear that they do not want generalities regarding environmental justice; they are looking for a specific response that relates to this site.

## **Attic Dust**

The results of attic dust sampling are included in the Risk-Based Sampling Report of April 1999. EPA targeted the 18 removal homes from Phase I and Phase II, sampled attic dust from 8 of these homes, and found that concentrations of arsenic were surprisingly low in the attic dust. There were slightly elevated levels of lead. EPA will not use this data in the Baseline Risk Assessment because of the infrequent exposure to attic dust. EPA will focus on chronic exposure to dust in living spaces.

Pete Stevenson is considering sampling attic dust and dust in crawl space in the 23 Phase III removal homes. Mel Muñoz said the community was interested in more sampling of attic dust to learn whether there was a problem that should concern the residents. The community suggested that EPA sample attic dust on a random basis (especially in older homes) or sample it in homes with high concentrations of arsenic in the yards, such as the 23 removal homes. If there is a pattern similar to that seen in the Phase I and II removal properties, then the community can be more comfortable about attic dust. Bonnie will talk with Pete Stevenson about sampling the attic dust in the 23 Phase III removal homes.

## **Dirt Piles**

Lorraine Granado reported that the dirt piles mentioned in the January Working Group meeting that were of concern to the community have been removed.

## **Dr. Drexler's Students' Study**

Barbara O'Grady reported that Dr. Drexler's students asked the State to identify state properties and pre-1960 homes that they could test for arsenic, lead, zinc, and cadmium. The state provided locations of state-owned land. Some state employees volunteered their homes for this class project. The testing results show some locations outside VB/I-70 that have elevated arsenic. David Mellard has these results and will provide them to EPA.

## **Pig Study**

David Mellard and Joyce Tsuji reported that the results of the pig study were presented at a toxicology conference. This release is inappropriate, as EPA has not yet reviewed the results.

## **Next Working Group Meetings**

March 16, 8:30 – 1:00

April 20, 8:30 – 3:00.

## **Handouts**

- Standard Operating Procedure, *Metal Speciation and Quantification of Perlite*
- *Sampling and Analysis Plan for the Vasquez Boulevard and I-70 NPL Site, EPA Region 8*
- *Vasquez Boulevard & I-70: Phase III Final Results Summary, February 23, 2000*
- *Initial Phase III Sampling Program Summary, including Summary of Sampling Activities, Summary of Phase 3 Findings, and Results for Phase III Residential Soils*
- The most recent Work Group and Contact Group lists

## **Acronyms**

EI – *Exposure Investigation*

ICP Method – *Inductively Coupled Plasma*

MDL Studies – *Maximum Daily Load*

NST Sample

RI – *Remedial Investigation*

RI/FS – *Remedial Investigation/Feasibility Study*

SOP – *Standard Operating Procedure*

XRP method